

6/5
With the author's compliments

15.

THE ORGANIZATION AND THE SYSTEM OF EXAMINATIONS OF THE CONJOINT EXAMINING BOARD OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ADDRESS DELIVERED

BY

FREDERIC G. HALLETT,
Secretary of the Board,

BEFORE THE CONFERENCE ON MEDICAL EDUCATION OF THE
AMERICAN MEDICAL ASSOCIATION AT CHICAGO—FEBRUARY 1912.







MR. PRESIDENT AND GENTLEMEN,

WILL you allow me, before I commence my address, to convey to you my warm appreciation of the honour you have conferred on me by your invitation to address this distinguished audience? I realize full well that the honour is not personal to me but to the system which I am here to represent and to explain to the best of my ability.

That this is the view taken by the two ancient corporations whose servant I am, is evident when I tell you that immediately on receipt of your invitation I submitted the proposal to the Presidents of the two Royal Colleges and to my Committee of Management, by whom I was at once instructed to place myself at your disposal and to afford you in the fullest manner possible all information as to our organisation and system of examination.

A free hand was given me to alter fixed engagements, to delegate my work as far as possible, and to make such arrangements as would enable me to be present throughout your Congress.

Now in order that I may explain our organisation and system of examination, it is necessary for me to enter into considerable detail, for it is mainly to the details of the organisation that the success of the examination system is due. I cannot but feel conscious that the explanation of these details may become tedious to you, and yet, were I to omit them, you would fail to appreciate the many points which we consider essential to the establishment of a practical, impartial, and thorough test of a qualification to practise Medicine.

The problem awaiting solution with you is, I understand, the development of an uniform system of State Examination which shall be of such a character as to secure to the public, a guarantee that the doctor who holds a State Licence has shown adequate proof of his ability to practise his profession.

If in the smallest degree our methods of testing candidates for their fitness to practise, prove to be worthy of your imitation or of use in guiding you to a still more serviceable system, it will be a source of great satisfaction to the Royal Colleges and, I need hardly add, to myself also.

Our system of examination has gradually developed as the result of many years of experience in dealing with large numbers of candidates. By large numbers I mean anything from 500 to 800 a year, and the system is so arranged that after the papers are written, the clinical, practical and oral work of each batch of men—25 to 50—is completed in one or two days, so that an addition of 100 men at any time means merely four more days' examination.

In Great Britain and Ireland there are several ways in which the Licence to practise can be obtained. Any Graduate in Medicine of one of the Universities is entitled to be registered as a medical practitioner without further examination; his University M.D. diploma entitling him to practise; in addition several ancient corporations, the Royal Colleges of Physicians and Surgeons in each division of the Kingdom and the Societies of Apothecaries, can grant a Licence with similar privileges, the only difference being that those who hold diplomas of the Corporations cannot call themselves doctors of medicine, nor use the letters "M.D."

The most important of these professional bodies, however, is the Conjoint Board of the Royal Colleges of Physicians and Surgeons in London. Previous to the year 1884 each of these Colleges held separate examinations and granted their diplomas separately. The Licence of the Royal College of Physicians was always claimed to be a complete qualification in Medicine, Surgery and Midwifery, but the Membership of the Royal College of Surgeons was a surgical

diploma only, although curiously enough when once placed on the Register that diploma entitled its owner to practise all branches of the profession.

In 1884 the two Colleges combined for the purpose of the examination of students for a complete Licence to practise, and it is of importance to understand that this organisation is in the hands of men who have risen to the highest positions in the medical profession. No influence, commercial, political or financial, can be brought to bear on this combination of corporations. Their independent and high position enables them largely to control and guide medical education, to set a high standard of examination and to maintain honoured traditions.

To explain their position it is interesting to recall that the Charter incorporating the Royal College of Physicians is dated 1513, whilst the Royal College of Surgeons, although dating back to 1745, when it was known as the Company of Surgeons, is really descended directly from the Barber Surgeons Company, the records of which go back to the year 1308. I do not propose to address the conference on the subject of examinations of those early days, for I do not think we have much to learn in the way of examinations from our forefathers, who would I fancy be rather astonished at the elaborate detail of the present day ordeal of a qualifying examination !

The Royal College of Physicians is governed by the body of Fellows to the number of about 350. These Fellows, or such of them as take interest and attend meetings of the College, have an equal voice in the discussions of the College. There are standing and special committees which are appointed from time to time to consider any question of policy or of education on which the College may desire advice. The Fellows include all the physicians to the well-known hospitals in London and many of those in the provinces, as well as a certain number of distinguished Foreign and Colonial physicians.

The Royal College of Surgeons is governed by its Council—a body of 24 members. This Council is elected by the

Fellows of the College, who number some 1500. The Councillors are all either active members of the surgical staffs of the large London and Provincial hospitals or have only recently resigned their appointments. The Council is, therefore, composed of well-known surgeons of established reputation, all or nearly all of whom are engaged in regular clinical instruction.

Each of the Royal Colleges appoints three members to a body called the Committee of Management, which is the administrative body of the Conjoint Board, and of which I have been Secretary since its establishment in 1884. Its duties are as follows :—

1. To arrange the examinations in accordance with the Regulations approved by the Royal Colleges.
2. To appoint visitors of the First and Second Examinations.
3. To consider such questions in relation to the examinations as they may think fit or such as shall be referred to them by either College or by both Colleges, and to report thereon.

This Committee is intentionally small as it is essentially a business committee, and those who have experience of business matters know well that a small committee is generally the most business-like. No member may serve as examiner, but the Committee generally consists of those who have been at some time or other examiners of the Board. It is interesting to me to remember that amongst the distinguished Physicians and Surgeons who have served on this Committee are Lord Lister, Sir William Savory, Dr. Ord, Sir Henry Pitman, Sir William MacCormac, Sir Jonathan Hutchinson. The present Committee consists of Dr. Norman Moore, a former senior Censor of the Royal College of Physicians ; Dr. Frederick Taylor, present senior Censor of the College, whose Text-book of medicine is so well known to you ; Dr. Ormerod, the Registrar of the Royal College of Physicians ; Mr. Rickman J. Godlee, the present President

of the Royal College of Surgeons ; Sir Henry Morris, Bart., a past President of the College ; and Sir William Watson Cheyne, Bart., C.B., F.R.S., a past Vice-President of the College.

The Committee of Management cannot alter the Regulations relating to the course of study or the conditions of admission to the examination, without the authority of the Royal Colleges. They may consider and report to the Royal Colleges, on any proposal which may be made, relating to the course of study or the examinations, and they are authorised to call together for consultation any teachers of any subject who may be interested in a particular proposal. In the First Professional Examination in Chemistry, for instance, if any suggestion is made for alteration in the form of examination or in the syllabus of the subject, the Committee would be authorised to consult the Teachers of Chemistry in the Medical Schools, and if thought desirable the Teachers of the other subjects of the First Year of the curriculum. In addition they may, and do, from time to time take the opinion of the Deans of the Medical Schools. These bodies are consulted together or separately, and as a result of the joint deliberations between the Committee and the Teachers, a report is made to the Royal Colleges by the Committee of Management. The same applies to other subjects of the First Examination and to the Second Examination in Anatomy and Physiology. When any question of importance relating to Medicine or Surgery comes up for consideration, it is generally dealt with in the first place by the Royal College respectively interested, and if any decision affecting the curriculum or examination is determined upon, the Committee of Management are then requested to draw up the necessary conditions and to report to both Colleges. It will be seen, therefore, that the Examining Board of the Royal Colleges, whilst entirely independent of all Medical Schools and Hospitals, has close relation with the Teachers in all branches, whilst its governing bodies are composed largely of active clinical teachers. It is to be noted also, that any alteration in the Regulations of study

made by the Royal Colleges is carried out at once in all Medical Schools in England, whether University Medical Schools or not, for the reason that, by virtue of the influence exerted by the Royal Colleges through their examinations, which are taken by University as well as by purely Con-joint students, no Medical School could allow itself to be in the position of not supplying all the conditions required by those students who desire our diplomas.

Our First Examination consists of Chemistry, Physics, and Biology, and is taken usually after about 9 months' study in a Medical School or in an institution recognised by the Board for the purpose. Certain Secondary Schools where modern and equipped laboratories exist are recognised for this purpose, provided that the masters are properly qualified to teach these subjects. No such school or institution is recognised until it has been inspected by a member of the Committee of Management. Students cannot enter for the First Examination until they have completed 180 hours of instruction in Chemistry, 120 hours of Physics, and 120 hours of Biology. If a student presents himself for examination from one of these institutions, whatever may be the duration of his course of study, it will only count for 6 months of the curriculum, leaving therefore $4\frac{1}{2}$ years to be completed at a Medical School and Hospital. The instruction may be taken partly or in whole before the Entrance Examination in general education is passed, but if this is the case a full five years' curriculum of professional study must be completed after the Entrance Examination is passed.

The Examination in Chemistry consists of a written paper of 9 questions, 5 in Inorganic and 4 in Organic Chemistry, six of which must be answered, and for which three hours are allowed. There is also a practical examination of three hours' duration, which includes a qualitative analysis of a single salt or a mixture of two metals and one acid, a simple volumetric analysis and the preparation of a chemical compound in a well crystallised condition.

A synopsis of this Practical Examination is issued.

The Examination is conducted in our own laboratory where we can take as many as 80 candidates in one batch. The Examiners can add a *viva voce* examination in doubtful cases.

The examination in Physics is conducted with a paper of 2 hours' duration consisting of 6 questions, of which 4 must be answered, and a practical examination with physical apparatus, during which the Examiners take each candidate orally. Candidates are taken in batches of 16 an hour.

The examination in Biology consists of a 2 hours' paper of 6 questions, of which 4 must be answered, and an oral examination on specimens, each candidate being examined for a quarter of an hour.

A candidate must enter for Chemistry and Physics together but he may pass in one only, provided he obtains half the marks required to pass in the other subject. He may take Biology separately.

Now the Board does not allow a student to commence the study of Anatomy and Physiology until he has passed in two of three subjects of the First Examination. We do not countenance overlapping of the subjects of the First, Second, and Third Examinations, but we feel that if the student has only one subject of the First Examination still to pass, he may fairly be allowed to commence Anatomy and Physiology. He must, however, complete the First Examination before entrance to the Second Examination. Between the first two examinations we have, therefore, only a partial block system.

For the Second Examination a student must dissect during 12 months of the regular sessions and his dissections must include the whole body. He must also attend a course of lectures on Anatomy for six months, a course of lectures on Physiology for six months, and a course of Practical Physiology, including Histology, also for six months.

The examination consists of papers in Anatomy and Physiology of eight questions, in each of which six must be answered. They are followed by a *viva voce* examination in each. In Anatomy the candidate is examined by one

Examiner on a freshly dissected body, on preserved specimens, on a living model, etc. ; whilst in Physiology he is examined on various instruments, apparatus and diagrams, on Histology and physiological chemistry. In each case another examiner assesses.

Between the Second and the Final Examination there is an absolute block, that is to say, no student may commence the courses required for his Final Examination until he has passed the examination in Anatomy and Physiology, and an interval of two years must elapse between the examinations.

During the interval of two years the student is constantly occupied in practical work both out-patient and in-patient. He has to be a Medical Clinical Clerk and Surgical Dresser in both out- and in-patient departments, as well as clerk in the gynæcological wards. He has to attend in the ophthalmic department, to attend pathological histology, clinical pathology and bacteriology, fever hospital practice, clinical demonstrations in a Lunatic Asylum, besides attendance on systematic lectures.

I have dealt very shortly with our earlier examination and with the curriculum of study because I believe that you will be more interested in our Final Examination, about which I feel that the fullest details are necessary in order that the system may be understood.

In regard to these certificates of attendance on the various courses of lectures, hospital practice, clinical lectures, dressership, clerkships, post-mortem work, etc., we make a very important provision, and that is that every certificate should contain evidence that the student has attended to the "satisfaction of his Teachers." This enables a teacher of any subject to enforce discipline in his class, to bring pressure to bear on the slack and idle student, and to encourage thoroughness in attendance, because any one certificate presented by a student with these words deleted would prevent him from presenting himself for the examination. Fortunately it does not often occur that such a certificate is presented to me, because the moral influence of such a regulation is sufficient to enable the Medical School

authorities to exercise control over the work of their students.

A most important element in our organisation is the appointment of the Examiners in the final subjects, and on this point I must lay particular stress, because we consider that it is largely to the position and reputation of the Examiners whom the Royal Colleges can command, that the prestige and high standing of our diplomas is due.

Ten physicians are appointed examiners in Medicine by the Royal College of Physicians, ten surgeons by the Royal College of Surgeons to examine in Surgery, five examiners in Midwifery by the Royal College of Physicians and four by the Royal College of Surgeons. In all cases the examiners are chosen from members of the staffs of the hospitals connected with Medical Schools either in London or at any of the University centres. They need not necessarily be Professors on their subjects, but they must be members of the staff of a large hospital and therefore actively engaged in clinical teaching. It is customary for the Examiners appointed by the Royal College of Physicians to serve for four years, whilst those appointed by the Royal College of Surgeons are elected for five years and may be re-elected for a second period of five years.

At the present time we have nine Physicians from London hospitals and one from Manchester, whilst in Surgery we have eight from London hospitals, one from Leeds and one from Birmingham. In Midwifery we have eight from London hospitals and one from Liverpool.

It has never been found, at either College, that any difficulty arises in regard to filling these appointments with leading physicians and surgeons, for it is not only felt to be an honour to examine for the Royal Colleges but it is considered important to a Medical School and Hospital that one of the staff should be on the Examining Board ; consequently, there is the inducement to an examiner to serve the Conjoint Board both for his own reputation and for that of his School and Hospital, although, it must be added, that the office not infrequently involves a pecuniary sacrifice on his part.

Naturally, the examination takes up a considerable part of the examiners' time, but we arrange as far as possible to consult the convenience of the Examiners by fixing such hours as will enable them to devote some part of each day to their own practices, and we break from time to time the sequence of days so as to give them a little respite. For instance, in Medicine the papers are on a Tuesday and Wednesday, and the first clinical and oral examination is on the following Saturday; then in the next week they examine on the Tuesday, Wednesday and Friday, and if more days are required, in the subsequent week on the same days. Thus an examiner has time to read his papers, to take part in the clinical and oral examination, and to see his own patients. Very much the same applies to Midwifery and Surgery.

We remunerate the Examiners as liberally as possible, and indeed it may safely be said that our examinerships are the most valuable in the country. Last year, for instance, each examiner in Medicine received £260; each examiner in Surgery received £265; and each examiner in Midwifery received £140. The fees for the Examiners are determined by the number of candidates; in other words we pay by capitation fee. Taking the number of candidates examined per day—24 in Medicine and Surgery and 32 in Midwifery, the fees work out approximately at £10 a day for each Examiner. It occasionally happens that an Examiner resigns his office on account of the pressure of his private practice, but it has been a very rare occurrence. Fortunately, as I have already said, there has been no difficulty hitherto in securing Examiners of high reputation to fill these positions.

The list of past and present Examiners of the Royal Colleges is one long line of distinguished men, known for their scientific reputation, highly respected by their professional brethren, and many honoured by their Sovereign.

Diagram I. gives a list of the various University and other Medical Schools and Hospitals from which we can and do draw our Examiners.

DIAGRAM I.

LIST OF RECOGNISED MEDICAL SCHOOLS IN ENGLAND.

OXFORD UNIVERSITY.

CAMBRIDGE „

DURHAM „

LONDON UNIVERSITY.	{	UNIVERSITY COLLEGE.	}	INCORPORATED COLLEGES OF THE		{	SCHOOLS OF THE UNIVERSITY.
		KING'S COLLEGE.		UNIVERSITY.			
		ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL.					
		GUY'S	"	"	"		
		ST. THOMAS'S	"	"	"		
		LONDON	"	"	COLLEGE.		
		MIDDLESEX	"	"	SCHOOL.		
		CHARING CROSS	"	"	"		
		WESTMINSTER	"	"	"		
		ST. MARY'S	"	"	"		
ST. GEORGE'S	"	"	"				
		LONDON SCHOOL OF MEDICINE FOR WOMEN.					

VICTORIA UNIVERSITY, MANCHESTER.

BIRMINGHAM „

LEEDS „

LIVERPOOL „

SHEFFIELD „

BRISTOL „

The examinations are held four times a year, in January, April, July, and October, with the result that if a man fails at one examination he can present himself again in three months' time, but during the interval he must attend again the practice and Clinical lectures at a recognised Hospital.

Some ten days before the commencement of an examination each separate Board of Examiners—Medicine, Surgery and Midwifery—is summoned to set questions for the papers. They meet at the Examination Hall and each examiner brings with him one or two questions for discussion; together they select the requisite number of questions, frame them carefully, and so determine the papers.

For the examination in every subject the examiners are paired, that is to say, two examiners always examine together, whilst every paper must be read and marked by two examiners. The standard of the examination is maintained by tradition, for it rarely happens that more than two examiners go off at

a time, frequently only one, and when a new examiner is appointed he is invariably set to examine on the first two or three occasions with one who has been on the Board for some time. He learns, therefore, from experienced examiners the range of the examination, the standard of marking, and the traditions attaching to the ordeal. By this means and by constant changes in the pairing of Examiners we believe that there is, year in and year out, very little, if any alteration in the standard of the examination. That the standard is a high one is shown by the percentage of rejections. The average annual numbers for the last five years have been as follows :—

<i>Medicine.</i>			
Total.	Passed.	Referred.	Percentage of Rejections.
639	389	250	39
<i>Surgery.</i>			
690	374	316	45·6
<i>Midwifery and Gynaecology.</i>			
567	377	190	38

The Royal Colleges do not profess to turn out an expert in any branch of the profession, but they do aim at assuring the public that a man who has obtained their diplomas is well qualified to practise. For this reason we do not hold separate examinations in special subjects, but from the fact that all subjects are included in one or other branch of the Final Examination a student must get up his work in all departments. He will be examined very thoroughly in general medicine, surgery and obstetrics, with a liability to be taken over special branches according to the patients brought down on the day of his examination, or to the particular branch of the subject which an Examiner may think fit to examine upon at the oral part. In the papers there are always questions on Forensic Medicine, Therapeutics, Hygiene, Pathology, Medical and Surgical Anatomy, as well as in general medicine and surgery ; and although it is not absolutely necessary that a candidate should answer every

question in each paper, yet it is well known that if he leaves any unanswered he is likely to suffer thereby. This of itself necessitates a thorough preparation in all branches.

Candidates who intend to present themselves for the examination must deposit in my office, fourteen days beforehand, a schedule of certificates showing that they have attended all the courses of study required by the Regulations, extending over a period of five years. These schedules are all examined by me, and if I find that there is any irregularity in the certificates or that any condition has not been fulfilled, I have the power to exclude a candidate from the examination.

We have an Examination Hall which was specially built for the purpose in 1886 at a cost of £26,000, containing large examination rooms, waiting and cloak rooms, a chemical laboratory, an anatomical room, as well as the administrative offices. This building is now found to be inconvenient owing to various developments in the examination, and a new Examination Hall is being erected by the Royal Colleges in the West Central district of London at a cost, including the freehold site, of £50,000. The organisation of the new building and the transfer of the examination material, records, and staff will be no light undertaking, but inasmuch as the new Examination Hall has been planned with the experience of 26 years of the Conjoint Board system, there is little doubt that it will be found to meet all our requirements. We expect to move into the new building in May next.

My staff prides itself on making all arrangements so complete for the examinations that the Examiners shall have nothing to do except to examine. The details are so worked out that every examiner knows which candidate he has to examine in each part. We inform every examiner of the number of patients he has to provide for each day, at the same time sending him cards to be given to the patients for each of the several days' examination. We remind them that they must provide the pathological specimens, macroscopic and microscopic and other examination material. We also give them a programme of the exact days and hours of their attendance. We impress upon them the absolute

necessity of punctuality and the importance of adhering strictly to the rules laid down by the Committee of Management, for we maintain that in dealing with a large number of candidates, unless system, punctuality and regularity are maintained, it is impossible to guarantee equality and thorough impartiality in the examination.

An important point in our system is that every candidate, when he has entered his name, is known by number only. The list of candidates for each part of the examination is compiled by my staff, and the Examiners are given only the numbers of those whom they have to examine in the several parts. Occasionally it happens that an examiner may be struck by the excellence, or the reverse, of some candidate's examination, or he may fancy he recognises some one and he may ask "Who is so and so?" or "Where does he come from?" The invariable answer is—"You shall know when the examination for the day is completed and the report is determined." No personal influence is allowed to affect the result of the examination, and none is ever attempted.

I will now proceed to describe the examination in Medicine. Of the ten examiners appointed, we employ only eight at a time, leaving two to sit out in rotation. These may be asked to fill any vacancy caused by illness or urgent call. The examiners (eight in number) are divided into four pairs called A, B, C, D, and in order that the details of the system may be followed, I give (in Diagram II.) the actual names of the present Examiners and the hospitals to which they are attached. At section A there will be, we will say, two examiners from St. Bartholomew's and Middlesex hospitals, whilst at B there will be two examiners from University College Hospital and Manchester. These four examiners will examine all the candidates bearing odd numbers and, therefore, in the office we arrange that no candidates from the hospitals in question are allotted odd numbers. In the same way, sections C and D will be examiners from King's College and St. Mary's and from London Hospital and Westminster, respectively; consequently in the office we arrange that no

DIAGRAM II.

ARRANGEMENT OF EXAMINATION IN MEDICINE FOR
ONE BATCH OF 24 CANDIDATES.

			<i>Paper.</i>	<i>Clinical.</i>	<i>Oral & Practical.</i>
SECTION A.					
Dr. HERRINGHAM.	St. Bartholomew's.	} Examine	1, 5, 9,	3, 7, 11,	1, 5, 9,
Dr. VOELCKER.	Middlesex.		13, 17, 21.	15, 19, 23.	13, 17, 21.
SECTION B.					
Dr. SIDNEY MARTIN.	University College.	} Examine	3, 7, 11,	1, 5, 9,	3, 7, 11,
Dr. BERRY.	Manchester.		15, 19, 23.	13, 17, 21.	15, 19, 23.
SECTION C.					
Sir HUGH BEEVOR.	King's College.	} Examine	2, 6, 10,	4, 8, 12,	2, 6, 10,
Dr. HARRIS.	St. Mary's.		14, 18, 22.	16, 20, 24.	14, 18, 22.
SECTION D.					
Dr. HADLEY.	London (Hosp.).	} Examine	4, 8, 12,	2, 6, 10,	4, 8, 12,
Dr. HEBB.	Westminster.		16, 20, 24.	14, 18, 22.	16, 20, 24.

The Candidates bearing ODD numbers may come from any Medical School except St. Bartholomew's, Middlesex, University College, or Manchester.

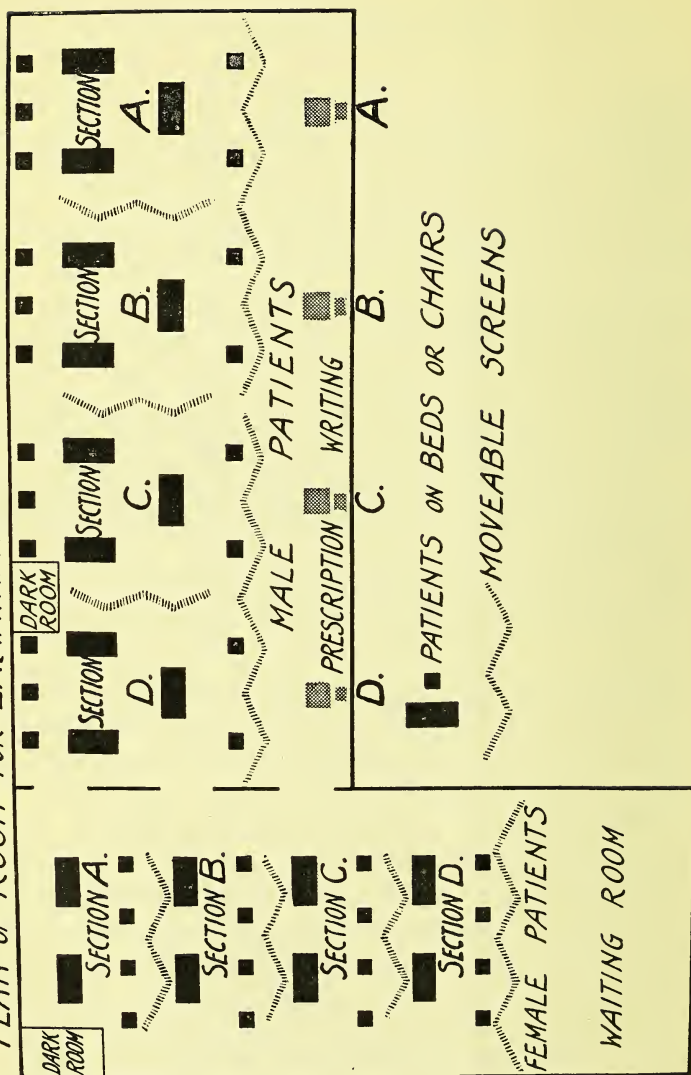
The Candidates bearing EVEN numbers may come from any Medical School except King's College, St. Mary's, London, or Westminster.

The same arrangement is used for the Examination in Obstetrics.

candidate from those hospitals are allotted to even numbers. Students from other Medical Schools (not represented by Examiners) are fitted into either odd or even numbers to balance the two sides.

When the papers are written the odd numbers are sorted out and put together. From these odd numbers the alternate numbers 1, 5, 9, 13, etc. are sent to section A, and the others, 3, 7, 11, 15, etc. to section B, half of the papers allotted to each section being sent to each Examiner of the section. The two Examiners of a section read the papers sent to them and exchange with one another, so that by the time the clinical and oral examinations commence, the examiners have read the papers of those candidates who will be examined on any particular day. They will not only have read them, but before the clinical examination commences they will have discussed them, and if there is any difference

DIAGRAM III.
 PLAN OF ROOM FOR EXAMINATION IN CLINICAL MEDICINE



in the marking of the two Examiners they will go through the paper together and agree upon the mark to be allotted. In practice, it is found that the marking of the individual examiners is extremely close and that very little adjustment is required before the final mark is awarded. In case of a difference of opinion, benefit of the doubt is given to the candidate. On the Saturday following the two Medicine papers, the first batch of the Clinical examination is held at the Examination Hall, where we arrange two large rooms temporarily as hospital wards, one for males and the other for females. These rooms are shown in Diagram III—the longer one is 100 feet \times 33 feet and the smaller 60 feet \times 25 feet. The patients are sent by the Examiners from their hospitals, and each patient brings a card on which is endorsed short notes of the case. These patients are either selected by the examiner himself or by his house physician, and may come from the wards or from the out-patient department, and they are dispatched in cabs the expense of which the Examining Board pays. We also give to each patient a fee for coming. The Examiners take the trouble to vary the cases as much as possible, as will be seen from the following list of patients who attended on one day during the last examination.

*List of Medical Patients in attendance on Saturday,
13th January, 1912.*

1. Hemiplegia with phthisis—probably tuberculous—of brain.
2. Paraplegia from Caisson disease.
3. Morbus Cordis—Mitral Stenosis.
4. Rheumatoid Arthritis from Gonorrhœa.
5. Old hemiplegia—probably thrombotic.
6. Chronic Arthritis—Rheumatoid.
7. Ascites—cirrhosis of liver.
8. Dorsal Myelitis—Spastic Paraplegia.
9. Aortic regurgitation.
10. Mitral regurgitation with Pulmonary infarction.
11. Spleno-medullary leukæmia.
12. Chronic pulmonary tuberculosis.
13. Aortic and Mitral Disease—Rheumatic Endocarditis.
14. Alcoholic Cirrhosis of Liver.

15. Pulmonary apical consolidation—probably pneumonic.
16. Aortic Regurgitation.
17. Disseminated Sclerosis.
18. Granular Kidney with Hydatid of Liver.
19. Endocarditis—Mitral regurgitation—enlarged liver and spleen.
20. Hypertrophy of Heart—Interstitial Nephritis.
21. Hypertrophic Muscular Dystrophy.
22. Lichen planus—general distribution.
23. Thoracic Aneurysm obstructing superior Cava and pressing on Trachea.
24. Locomotor Ataxia with Ptosis and optic atrophy.
25. Tuberculous Peritonitis.

You will notice that in each department, male and female, there are so many beds and chairs allotted to each section, the partitions being formed by moveable screens. It may happen that on one day Section A, for instance, has two males and four females, in which case the extra beds will be taken from the male room and put into the female room for Section A ; but usually the beds are distributed as shown in the diagram. At the time of commencing, 2 o'clock, four candidates are brought into the room, one is taken to each pair of examiners—A, B, C, D. The Examiners from Section A tell their candidate to examine one of the patients, and he is left alone ten minutes to make his examination of the patient. The same happens at each of the other sections. At the end of ten minutes the Examiners go to him, one of them takes him carefully over the case, whilst the other listens and assesses. The examination on this first case continues for the period of ten minutes, and is known as the long case. At the end of the second ten minutes the Examiner who has been assessing then takes the same candidate over two or three short cases for another ten minutes, whilst the first examiner assesses. At the commencement of the third period of ten minutes a second batch of four candidates is brought in, and so overlaps the first batch by ten minutes, and when at the end of this third period of ten minutes, the first candidate is dismissed, the second man has completed his ten minutes' preliminary examination of the long case by himself and is then taken

by the first examiner over it. Although, therefore, the Examiners have before them a candidate for twenty minutes only, the candidate himself is under examination for half an hour. By this method we can take 24 candidates in 2 hours and 10 minutes, six candidates by each section. In every case the Examiners allot their marks as the candidate leaves them. They may divide their marks between the long case and the short cases, or they may mark the candidate on the whole, according to their individual judgment, but they must allot their marks immediately on the completion of the candidate's examination.

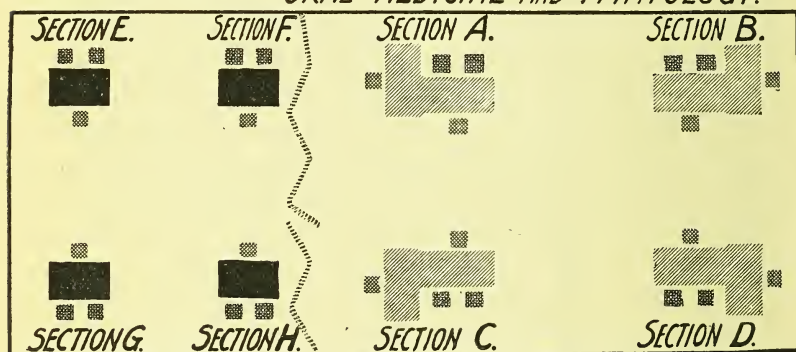
I may here point out that as the papers of candidates No. 1 and No. 5 have been examined by Section A, candidates Nos. 3 and 7 are examined by Section A at the clinical examination (see Diagram II.), and, therefore, their mark on the clinical examination is given without knowledge of what the candidate has done on his papers. When each candidate has finished with the Examiners he goes to a side table and he is required to write a dietary table and prescription for some hypothetical case, which is given by the Examiners. These written dietary tables and prescriptions are not marked with the clinical examination, but are handed to the Examiners at the oral part of the examination in the evening and are taken into account in allotting the mark at that examination.

It may be thought that there would be danger of the candidates obtaining knowledge of the patients on which they were to be examined, but, in the first place, it will be noticed that as the patients are sent by the Examiners from their own hospitals, and as the Examiners do not examine their own students, it is obvious that the students are examined on patients from hospitals other than their own. The question of collusion between the students of the hospitals in order to find out what patients are being sent, does not appear to us to be of importance because each student will not be examined on more than three, or at the most four, out of at least twenty-four patients, and there is no means of knowing beforehand by which examiner and on

what cases he will be examined. But even supposing that the candidate did know beforehand of a case which he was examined upon, the experience of the examiners in discussing with him the signs and symptoms is quite sufficient to guard against any undue advantage from this cause. To avoid the possibility of those who have been examined early in the afternoon communicating the cases to those who come later, a very simple expedient had been adopted. We summon half the candidates to attend at 1.45 and shut them up in a room by themselves. By the time that the third batch of

DIAGRAM IV.

OBSTETRICS *PLAN OF ROOM FOR PRACTICAL AND ORAL MEDICINE AND PATHOLOGY.*



- CANDIDATES
- EXAMINERS
- TABLES FOR URINE TESTING, MICROSCOPIC WORK ETC., MICROSCOPIC SPECIMENS AND GENERAL ORAL EXAMINATION.
- TABLES WITH OBSTETRICAL INSTRUMENTS, MANIKINS AND PATHOLOGICAL SPECIMENS.

four men, or half the candidates for the afternoon examination, have gone into the room, the second twelve are summoned to another room and kept there until the first twelve have left the building. By this means we keep those who have been examined separate from those who have to come, and yet no candidate is kept waiting for any very long period, a point which must be considered when we think of the state of mind of a candidate about to be examined!

The Examiners are free then at 4.10 P.M. until they re-assemble at 7.40 in the evening for the oral and practical part of the examination in another room arranged as shown in diagram (No. IV.). At one end of the table of each section there are all the Reagents required for urinary tests and sets of microscopes, whilst at the other end there are dishes of gross pathological specimens either fresh or preserved. In the same way as at the clinical examination, four candidates are brought into the room at 7.50, by which time the Examiners have arranged specimens under the microscopes and have put out so many specimens of urine. The candidate at each table is told to test one urine and to look at the three specimens under the microscopes. They are allowed ten minutes to do this by themselves. At 8 o'clock the candidate moves to the table in front of the examiner, who then takes him over the urine and specimens and any other subject he likes for ten minutes, whilst the second examiner assesses. At the end of that ten minutes the second examiner takes him over gross pathology and any subject he likes for ten minutes more, but during this last ten minutes another candidate is brought in and given one of the samples of urine and the same or other microscope specimens as the examiner thinks right. In the same way as at the clinical examination, the examiners award their marks immediately the candidate has finished his examination, and they take into account the dietary table and prescriptions written by the student in the afternoon. By 10 o'clock the twenty-four candidates who were examined at the clinical examination in the afternoon will have been examined at the oral and practical part, and the examiners then retire to the Committee Room to decide on the result of the examination. Incidentally, I may mention that the specimens of urine are sent from the hospitals and brought by the patients in the afternoon, whilst the gross pathology specimens are arranged for by the examiners, who send from the Museum of their own hospitals various preserved specimens, or fresh specimens from the Post-mortem Room.

The Examiners then sit round a table and the Secretary

calls out the number of the candidates in turn. Section A will give the marks on the papers of candidate No. 1, Section B will call out his clinical mark, and Section A will call out his oral mark. These marks are totalled and the candidate is declared to have passed or failed. C and D will then give the marks of No. 2, B and A the marks of No. 3, D and C the marks of No. 4, and so on. There is practically no reconsideration of these marks as it will be observed, that although 50 per cent. is considered the standard of the examination, the actual number—27—is half a mark below 50 per cent. The system of marking is shown in Diagram V. It is peculiar to the Royal Colleges and is somewhat ancient in character, but whether you mark in tens or hundreds is quite immaterial so long as you work to one definite standard.

The marks are small because the examination being for a Licence to practise and not a competitive or honours' examination, there is no necessity for very nice discrimination between the candidates. A man for example who writes good papers in Medicine and Surgery and Midwifery would be marked 6, or 7, 12 and 6 respectively, but the man who is just sufficient for a pass would receive 5, 5, 9, and 5 respectively, whilst a poor man would only get 4 or 3, 6 or 7, and 4 on the papers. He may pick up by doing well at the clinical, practical, and oral parts, but he must get 50 per cent. to pass in any subject. The minimum marks shown in the table merely mean that if a student at any one part of the examination is marked below the minimum, he cannot pass even if by doing exceptionally well on the other parts, he manages to reach a total of 50 per cent.

The candidates are summoned to return to the building by 10 o'clock, and by a quarter past ten each candidate is personally informed of the result of his examination. Those who have passed are brought into the room where the Examiners are sitting and are formally addressed by the Chairman of the Board and they sign their names in the Register. Those who fail are given a printed notice telling

DIAGRAM V.

CONJOINT EXAMINATION BOARD OF THE
ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE
ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MEDICINE.

SUBJECTS.	TIME.	MARKS.		MARKS TO PASS.
		MAXIMUM.	MINIMUM.	
WRITTEN { PAPER I	3 HOURS	10	} 6	} 27
PAPER II	3 HOURS	10		
CLINICAL	30 MINUTES	20	6	
PRACTICAL & ORAL	30 MINUTES	15	4	
PATHOLOGICAL & ORAL		55		

SURGERY.

SUBJECTS.	TIME.	MARKS.		MARKS TO PASS.
		MAXIMUM.	MINIMUM.	
WRITTEN PAPER	3 HOURS	18	4	} 30
CLINICAL	30 MINUTES	12	3	
SURGICAL ANATOMY & APPARATUS .	15 MINUTES	10	2	
ORAL TABLE 1	10 MINUTES	10	2	
" " 2	10 MINUTES	10	2	
		60		

MIDWIFERY and GYNÆCOLOGY.

SUBJECTS.	TIME.	MARKS.		MARKS TO PASS.
		MAXIMUM.	MINIMUM.	
WRITTEN PAPER	3 HOURS	10	3	} 10
PRACTICAL & ORAL, TABLE 1	10 MINUTES	5	1	
" " " 2	10 MINUTES	5	1	
		20		

N.B.—ALL PAPERS MUST BE READ BY BOTH THE EXAMINERS
OF A SECTION.

them that they have failed and that they must attend the practice of a recognised hospital for three months before presenting themselves again.

It will be seen, therefore, that we arrange the various parts of the examination in such a way that there shall be no delay in arriving at the result, because we see no reason why, if the system is properly organised, there should be any time of suspense for the student between the completion of his examination and the announcement of the result.

Surgery.

The arrangement of the examination in Surgery differs from that in Medicine, because all five pairs of Examiners are employed and it is the practice for every student to be examined in some part or other by each of the five sections. The system is shown by Diagram VI., and we provide in the office that no papers of students from, say, the hospitals represented by the examiners at Section A are sent to them to read. It follows that the students from these two hospitals must come before their examiners at some other part of the examination, but when this happens we put down the examiner who is not the student's teacher to examine him, whilst the other, his teacher, merely assesses. In this way the teacher never examines his own student and only assesses to the extent of one-tenth, whilst his colleague does not know that he is examining a student from the other's hospital. To avoid the possibility of a certain examiner having to take a series of candidates consecutively from his colleague's hospital, the list is made out in batches of ten, care being taken for instance that Nos. 1, 6, 11, and 16 shall not all be from the same hospital, although Nos. 1 and 11 may be from the same hospital and numbers 6 and 16 from another.

The patients are sent to the Examination Hall by the Examiners as in the case of Medicine, and we usually arrange that there are at least 30 Surgical cases present in

DIAGRAM VI.

SECTION A.		PAPER.	CLINICAL.		SURGICAL ANATOMY & APPARATUS.		ORAL SURGERY & PATHOLOGY.		ORAL SURGERY & PATHOLOGY.	
Mr. POLLARD, UNIVERSITY COLLEGE		Examine	1, 6, 11, 16, 21, 26, 31, 36, 41.		2, 7, 12, 17, 22, 27, 32, 37, 42.		3, 8, 13, 18, 23, 28, 33, 38, 43.		4, 9, 14, 19, 24, 29, 34, 39, 44.	
Mr. WATERHOUSE, CHURCH CROSS										
SECTION B.										
Mr. LANE,		Examine	2, 7, 12, 17, 22, 27, 32, 37, 42.		3, 8, 13, 18, 23, 28, 33, 38, 43.		4, 9, 14, 19, 24, 29, 34, 39, 44.		5, 10, 15, 20, 25, 30, 35, 40, 45.	
Mr. BALANCE,										
St. Mary's, St. THOMAS.										
SECTION C.										
Mr. DUNN,		Examine	3, 8, 13, 18, 23, 28, 33, 38, 43.		4, 9, 14, 19, 24, 29, 34, 39, 44.		5, 10, 15, 20, 25, 30, 35, 40, 45.		1, 6, 11, 16, 21, 26, 31, 36, 41.	
Mr. WARING, St. BARTHOLOMEW'S.										
Guy's.										
SECTION D.										
Mr. SPENCER,		Examine	4, 9, 14, 19, 24, 29, 34, 39, 44.		5, 10, 15, 20, 25, 30, 35, 40, 45.		1, 6, 11, 16, 21, 26, 31, 36, 41.		2, 7, 12, 17, 22, 27, 32, 37, 42.	
Mr. KNAGGS,										
Westminster, Leeds.										
SECTION E.										
Mr. HASLAM,		Examine	5, 10, 15, 20, 25, 30, 35, 40, 45.		1, 6, 11, 16, 21, 26, 31, 36, 41.		2, 7, 12, 17, 22, 27, 32, 37, 42.		3, 8, 13, 18, 23, 28, 33, 38, 43.	
Mr. HUTCHINSON, LONDON (Hosp.).										
BIRMINGHAM.										

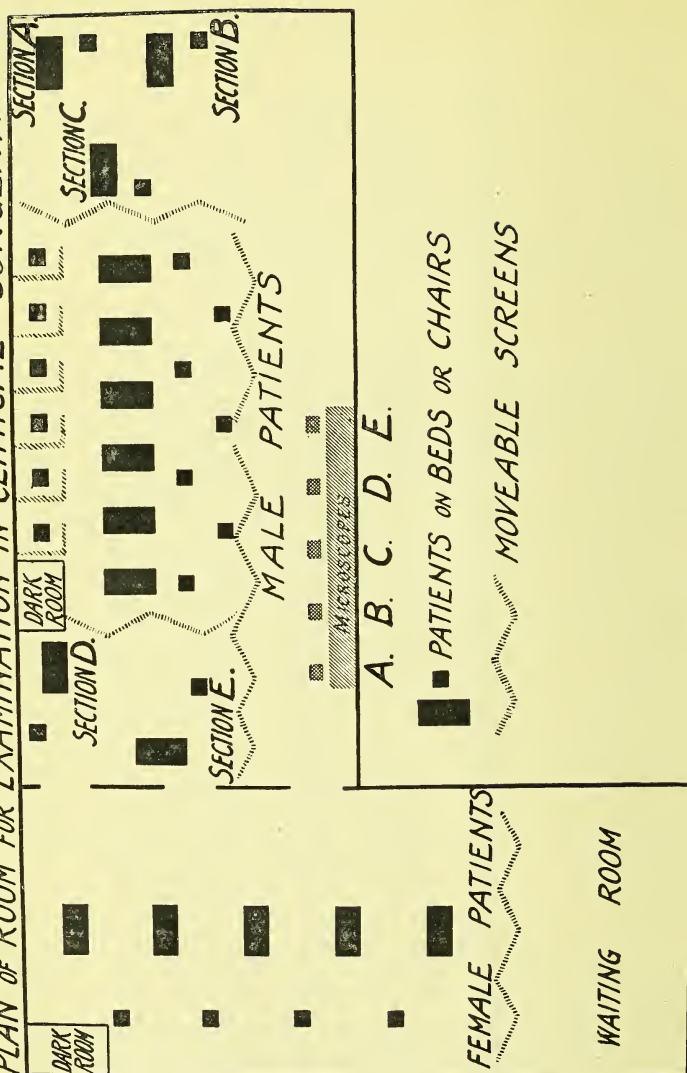
The Candidates bearing Nos. 1, 6, 11, 16 etc. may come from any Medical School except										
"	"	Nos. 2, 7, 12, 17 etc.	"	"	"	"	"	{ UNIVERSITY COLLEGE or CHURCH CROSS.		
"	"	Nos. 3, 8, 13, 18 etc.	"	"	"	"	"	{ St. Mary's or St. THOMAS'S.		
"	"	Nos. 4, 9, 14, 19 etc.	"	"	"	"	"	{ GUY'S or St. BARTHOLOMEW'S.		
"	"	Nos. 5, 10, 15, 20 etc.	"	"	"	"	"	{ WESTMINSTER or LEEDS.		
"	"	Nos. 5, 10, 15, 20 etc.	"	"	"	"	"	{ BIRMINGHAM or LONDON (Hosp.).		

The Candidates bearing Nos. 1, 6, 11, 16 etc. may come from any Medical School except

{ UNIVERSITY COLLEGE
 or CHARING CROSS.
 { St. Mary's or
 St. THOMAS'S.
 { GUY'S or
 St. BARTHOLOMEW'S.
 { WESTMINSTER
 or LEEDS.
 { BIRMINGHAM
 or LONDON (Hosp.).

DIAGRAM VII.

PLAN OF ROOM FOR EXAMINATION IN CLINICAL SURGERY.



the room. The examiners attend half an hour before the commencement of the examination, that is at 4.30, to select patients for what are again called the long cases. I show on Diagram VII. the arrangement of the room for the Surgical examination. In the right-hand partition there are three beds and three chairs, and in the left hand two beds and two chairs ; the right-hand is for male and the left for female patients, but it depends on the number of those of each sex sent down whether all the long cases be male or not. The examiners select ten patients for the long cases, two of which are allotted to each section, and the examiners of that section fully examine those patients before the candidates go to them. The other patients are spread about the rooms and, unlike the Medical cases, the Surgical patients are common to all examiners. At 4.45 o'clock five candidates are brought into the room and one is sent to the two patients allotted to section A, another to the two patients allotted to section B, and so on ; they are told that they have a quarter of an hour to examine those two patients. These are known as the long cases. At the end of the quarter of an hour's examination these five candidates go to their respective sections of examiners, and they are taken over the cases they have examined for about five or six minutes by one examiner whilst the other assesses, and during the remainder of the quarter of an hour they are examined on short cases by the same examiner. During the time these men are being examined, another batch of five students is brought into the room to examine the long cases. In this way, although each candidate is before the examiners for a quarter of an hour only, he has altogether half an hour's examination of patients. The examination continues until a quarter past seven, by which time each section will have examined nine candidates and a total of 45 will have been examined on patients. The following is the list of Patients in attendance on Monday, 15th January :—

LONG CASES.

1. Gummatous disease of testicle.
2. Lumbar abscess.
3. Synovitis of knee. Congenital syphilis.
4. Mass of hard enlarged glands in the neck in a man aged 54, probably due to a malignant disease in throat.
5. Charcot's disease of hip.
6. Tuberculous disease of testicle.
7. Hammer toe and sebaceous cyst on scalp.
8. Old osteo-myelitis of tibia with genu valgum.
9. Sarcoma of forearm.
10. Adenoma of thyroid.

SHORT CASES.

Men.

1. Enlarged bursa over olecranon following injury.
2. Old osteo-myelitis of humerus (when aged 21) in a man of 40.
3. Epithelioma of tongue with enlarged glands.
4. Bubonocoele (large), man 39.
5. Hernia, inguinal. (73)
6. Small hydrocele with some thickness of epidermis (boy 16), probably tubercle.
7. Specific ulceration of palate. (38)
8. Impacted intra-capsular fracture neck of femur. (33)
9. Ilio-psoas abscess with spinal caries. (18)
10. Charcot's disease of hip. (37)
11. Sebaceous tumours of scalp.
12. Varicocele and cyst of opposite epididymis. (33)

Women and Children.

13. Child, aged 3, very bad congenital talipes equino-varus.
14. Angular curvature of spine, child aged 9.
15. Child of 9 with specific (congenital) osteitis and periostitis and ulceration of neck.

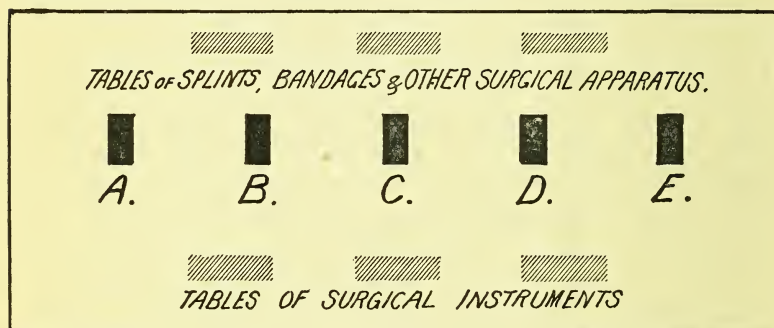
16. Child aged 7, old injury to elbow, fracture of internal condyle.
17. Specific ulcer of leg. (52)
18. Enlarged glands of neck, secondary to epithelioma of upper jaw. (42)
19. Large malignant tumour of breast. (58)
20. Enlarged gall-bladder. (43)
21. Enlarged gall-bladder. (46)
22. Tuberculous glands of neck. (34)

On the completion of the clinical examination of each batch of five men, they are sent to a table to examine specimens of Surgical Pathology under the microscope, two of which are given to each. The report on these specimens is made in writing on a form specially provided and taken into account on the next day at the surgical oral examination. A list of the specimens shown is handed to each examiner. The candidates are summoned to the building in batches of five up to half time, and as they finish they wait in a room by themselves until at half time the remainder of the candidates who have been summoned in one batch have arrived and have been assigned to another room. The first half are then allowed to go. There can be, therefore, no communication between those men who have been examined and those who are to be examined. The patients, who are all paid a small fee, are then dispatched to their hospitals. At 7.45 the examiners begin an examination in Surgical Anatomy and apparatus. During the interval my attendants rearrange the room and the examiners return to find it as shown in the diagram VIII. On each of these beds there is a man undressed, who is utilized as a model for surface marking. On tables arranged along the room there are bandages and splints and instruments of all sorts. The candidate is examined by one examiner and assessed by the other, and he may be asked to apply a bandage or a splint, to mark out the course of an artery, vein or nerve, to explain how he would perform a certain operation, marking out with chalk the flaps or the course of the incision, etc.; he is asked to

choose from the trays the instruments he would use and to show how he would use them ; to show by means of glasses and diagrams how he would test a patient's eyesight, etc. This examination lasts in each case for a quarter of an hour and at the end of that time the examiner and his assessor award the mark. The examiner who has been assessing the first candidate takes the next candidate and they alternate through the evening. The same 45 men are examined in this manner up to 10 o'clock. The marks are all handed to me and I enter them in the report book. During the evening

DIAGRAM VIII.

PLAN OF ROOM FOR EXAMINATION IN PRACTICAL SURGERY APPARATUS AND SURGICAL ANATOMY.



■ *BEDS WITH LIVING MODELS FOR SURFACE MARKINGS*

each pair of examiners will have also handed to me the marks on the written papers of the candidates being examined on that day. The next day the same 45 candidates are summoned in batches of 5, at 20 minutes' interval, to the Royal College of Surgeons, where they are examined *vivâ voce* on general surgery and pathology. Each table, at which a pair of examiners sits, is covered with pathological preparations from the celebrated Hunterian Museum of the College, and these preparations are used as a text on which to examine the candidates. This examination commences at 5 p.m., and each candidate goes to two pairs of examiners for ten

minutes each. You will see, therefore, in Diagram VI., that candidate No. 1 is examined by Section A for the paper, by Section E for the clinical part, by Section D for the surgical anatomy, by Sections C and B at the two pathological tables, and the other candidates are distributed in a similar manner over the five sections. At 7 o'clock the examiners break off, when the marks of the 30 candidates whose oral examination has been completed are entered by the Secretary. The Examiners sit round a table, and the Secretary calls out the numbers and marks from a book so that they may be checked by the Examiners from their own records, and the Chairman then declares those who have passed and those who have failed. The candidates are personally informed of the result of their examination: those who have passed sign the bye-laws of the College and are then formally introduced into the examiners' room, where they are congratulated by the Chairman and informed that they have satisfied the Examiners. The Examiners then proceed with the examination of the remaining 15 men, which takes another hour, and at the end of that time the marks are called out again and the successful candidates are admitted in the same way as were the first batch. The Examiners leave at 9 p.m., having in the two days completed the examination of 45 candidates. 180 candidates are, therefore, examined in eight days—four pairs of two days. The surgery paper is written on a Friday and the pairs of days are usually Monday and Tuesday, Thursday and Friday, thus giving intervals to the Examiners not only to read the papers but to see their private patients. The hour of commencing each day being 4.30 or 5, as the case may be, moreover, gives the examiners considerable freedom.

For all subjects we allot the early numbers to the provincial candidates, so as to minimise as far as possible the expense of staying in London. A provincial candidate need not stay more than a week in London even if he is taking the whole examination, but if he is taking one or two subjects only four or five days will be sufficient.

There are nine Examiners in Midwifery of whom eight take part in each examination, the one not employed being determined by rota. They are arranged in pairs, as usual called E, F, G, H. The same system is adopted as in the case of Medicine, that is the Examiners at E read the paper of No. 1 and examine him in Midwifery, whilst section F takes his oral in Gynæcology. Section F reads the paper and takes the Midwifery oral of No. 3, whilst section E examines him in Gynæcology. In the same way sections G and H deal with the even numbers. The office arrange in the same way that no students are examined by E, F, G and H respectively, who come from the hospitals to which the Examiners are attached.

The paper on Midwifery and Gynæcology is on a Thursday, *i.e.* between the Medicine and Surgery papers, and the oral examination is held on the same evening as the Medicine Examination, but from 7 to 9.40 p.m. The tables at which the Examiners sit are furnished with all sorts of obstetrical instruments, with manikins and various mounted and preserved specimens (see Diagram IV.).

Four candidates are called in at a time, one to each table. They are all examined for ten minutes on Midwifery; at the end of this period the candidates at E and F change with one another, as do those at G and H, and they are all then examined in Diseases of Women for ten minutes, after which they leave the room and a fresh batch is brought to the tables.

By 9.40 o'clock, therefore, 32 candidates will have been examined, and the Examiners then call over their marks to me. I enter them and declare the results. The candidates who are summoned to return at 9.40 are then personally informed by a member of the office staff, if they have been successful or not.

Now one criticism you will probably make is, that the time of the examination is all too short, but I will answer that criticism by saying that the examination is not competitive but a test of fitness to practise.

The Examiners do not ask abstruse or out-of-the-way

questions but examine on straightforward matters that everyone ought to know. They do not expect an absolute diagnosis but they judge of the commonsense way a man goes about his work, of the questions he asks his patients, of the reasons he gives for forming his opinions, of the tests he uses and the methods he employs.

It is surprising how much an experienced examiner, and even an inexperienced man who has worked for a short time with an old Examiner, can extract from a candidate in 15 minutes, and it must be remembered too, that, as I have emphasized, all our examiners are engaged in teaching and know what may fairly be expected of a Student who has reached this stage in his career.

It may be interesting to state what it costs to work a Final Examination in Medicine, Surgery and Midwifery for two hundred men.

The examination fees come to the following amounts:—

Medicine	£700	
Surgery.....	850	
Midwifery.....	380	£1930
Eight days' medical patients.....		30
Four days' surgical patients		30
Conveyances		10
Extra Attendants and Model men		15
		<hr/>
		£2015
		<hr/>

In addition there is, of course, the upkeep of the Examination Hall, the general organisation expenses, including the salaries of myself and office staff and attendants.

Be it remembered that we have no State Grant in aid; we have to depend entirely on the fees for our diplomas. These fees are large—£42—part of which is paid for the Final Examination. These fees—£42 (\$210)—are distributed over the examination: thus £10 10s. (\$52) is paid for the First Examination; £10 10s. (\$52) more, a year and a half later for the Second Examination; and £21 (\$105)

at the end of the curriculum for the Final Examination. No doubt to you this will seem a large sum to pay for a licence to practise, and it is obvious that with the fees paid in this country for the degree of M.D. it would be impossible to conduct an examination on the scale such as I have described. It would be necessary either to greatly increase the fees payable for the M.D. degree or that the State should provide funds for the conduct of a satisfactory practical examination. In spite of these high fees and of our heavy percentage of rejections, probably to a large extent because of the high standard, the men come to us for our diplomas even when they are also taking University Degrees.

Now, I wish to call your attention to a very interesting fact, and it is this : Although every University degree and every diploma granted by the Royal Colleges carries with it precisely the same privileges with regard to registration as a medical practitioner, yet it is the practice of a large majority of those who are seeking degrees of Doctor of Medicine at the Universities in England to take also the diplomas granted by the Royal Colleges. This does not apply to Scotland or Ireland with their corresponding Colleges of Physicians and Surgeons. For example, of the Graduates in Medicine of the Universities of Oxford and Cambridge, no less than 82 per cent. take our diplomas ; of the University of London 84 per cent. take our diplomas ; whilst of the total University medical students in England, 67 per cent. enter for the examination for our diplomas.

All these men have, therefore, to undergo twice over a Final Examination in Medicine, Surgery and Midwifery—one by their University, and secondly by our Board, and they have to pay a comparatively heavy fee for our diplomas. You will naturally ask why they do so. Well! there are various reasons. First, our diplomas are known throughout the Kingdom for the practical nature, the fairness and the high standard of the examination and they have a well established reputation and prestige.

Then in some cases, although we require a full five years' curriculum, our diplomas can be obtained a little earlier than

the University degree, but this is by no means general. Another reason, I think, is that many University men look forward to obtaining our higher diplomas—our Fellowships which are almost essential for consulting practice in England, and they, therefore, wish to become our Licentiates and Members as a stepping-stone to those diplomas.

I may perhaps just sum up the particular features of the Examination.

We can examine at one time as many as 250 candidates. In the case of Chemistry they would all write their paper on one day : they would be examined in the laboratory in three batches of 80 men each, leaving a few for a fourth batch. These four batches would take two mornings and two afternoons.

In Physics the candidates would be examined at the rate of 16 men an hour in the practical part, or a total of 16 hours spread over 3 days.

In Biology we only take 36 candidates a day for the oral part, and therefore the Examination would occupy 7 days.

For the Second Examination in Anatomy and Physiology we examine 48 candidates a day in the oral part, and we should therefore take five days and a part to get through this number.

As a matter of fact, however, we do not have such large numbers for the First and Second Examinations, because many of our candidates obtain exemption from these Examinations by passing in the subjects at their Universities.

For the Final Examination the papers in Medicine are written on a Tuesday and Wednesday and the clinical and oral part commences on the following Saturday when 24 candidates are taken. We should examine four days in the next week when 96 more candidates are taken, and four days in the week after, when again 96 candidates would be examined, leaving 34 to be taken in $1\frac{1}{2}$ days in the following week, so that in three weeks from the date of the paper we should finish the whole of the candidates.

In Midwifery we examine 32 candidates a day, therefore in

8 days—four days a week—we should complete the Examination and, as the paper is written on a Thursday and the first oral night is on the following Saturday, it takes exactly a fortnight.

For Surgery, the paper is written on a Friday and the oral commences on the following Monday. We take 90 candidates in four days in the following week and 90 candidates in the week after that, and the remaining 70 candidates take another four days, two of which would be short, so that in three weeks from the date of the paper the examination is finished.

Take an individual candidate : he will have two papers of 3 hours each in Medicine, one of 3 hours in Midwifery, and one of 3 hours in Surgery. He may be summoned to attend for his oral examination on any of the days appointed for the practical and oral parts. On the day that he is summoned to attend for Medicine and Midwifery he is examined in clinical medicine for half an hour, in practical and oral medicine for half an hour ; in midwifery for 20 minutes ; in Surgery he would be summoned for another day for half an hour's clinical examination and a quarter of an hour's examination in Surgical Anatomy and Apparatus, and for 20 minutes' examination in Pathology and Surgery on the following day, making a total of 65 minutes for his Surgical Examination.

An Examiner in Medicine would therefore be occupied for $4\frac{1}{2}$ hours on each of $10\frac{1}{2}$ days and would receive in fees £110 (\$550) ; an Examiner in Midwifery would be engaged on seven days for 2 hours and 40 minutes each, and would receive £60 (\$300) ; and an Examiner in Surgery would be engaged on 10 days for $5\frac{1}{2}$ hours and 4 hours alternately and for two shorter days, and would receive in fees £106 (\$530).

You will agree with me that at any rate our Examinations are practical and thorough, and because of this I consider our Licence has a peculiar value, namely, that the mere fact of a man having to undergo a series of examinations before such a number of strange Examiners, and away from the surroundings and associations of the Institution in which he

has been educated is, in itself, a test of his ability to act in emergency, to adapt himself to circumstances, and to prove himself capable of rapid resource.

It is now 34 years since I first entered the office of the Royal College of Surgeons, and for 24 years I have been Secretary of the Conjoint Examining Board of the two Royal Colleges. During these years the examinations and the organisation have greatly developed. I have seen the practical examinations of other bodies—indeed, in addition to our own examinations the management of a considerable part of the examination for the Degree of the University of London, as well as the examination for Surgeons for H.M. Navy and for the Indian Medical Service is in my hands. Naturally I have acquired certain convictions as the result of my experience and have contemplated how an ideal system of State Examination should be framed, where no vested interests stand in the way. May I conclude my address by shortly stating the outlines of such a scheme?

- I. Assuming that Medical Education is on a sound and efficient basis, the State Board should be representative of the Professorial Staffs of the Medical Schools and Hospitals.
- II. Should the Board be a large one, an Executive Committee consisting of 6, or at the most 8, Members of the Board, should be appointed who should be entrusted with the administration of the Examination on conditions laid down by the State Board.
- III. The Examiners should only be elected from Physicians and Surgeons who are engaged in active Clinical Instruction.
- IV. The following conditions should be observed :—
 1. There should be not less than 10 Examiners in Medicine, in Surgery, and in Midwifery.
 2. They should be well distributed amongst the staffs of hospitals where clinical instruction is given.

3. The appointments in each subject should be so arranged by rota that not more than two Examiners in each subject should go off in any year.
 4. The appointments should be for a period of five years but subject to annual re-election.
 5. A new examiner should be paired with one who has examined for not less than 3 years.
 6. The pairs should be changed every two examinations.
 7. The examinations should be held four times a year to keep the numbers in moderation and to prevent too great a penalty for failure.
 8. An official should be responsible for all details of organisation with a sufficient staff. He should have a free hand to organise the examination under the supervision of the Executive Committee.
 9. Punctuality, regularity, and compliance with the conditions laid down by the Executive Committee must be absolutely insisted upon.
 10. A high standard should be set from the commencement, for unless the examination standard is a high one the teaching will not be thorough and the confidence of the profession and the public will not be gained.
 11. In the conduct of the examinations the system described for our Surgery should be adopted, viz.:— 5 pairs of examiners—each pair in turn taking some part of each candidate's examination.
- V. Should there be numerous States in the Country, it would conduce to economy, efficiency and equality of standard, for such States to be divided into zones, 2, 3, 4 or even 5, States combining in one Conjoint State Board according to their Geographical situation.
- VI. There would thus be groups of State Boards between which there should be complete reciprocity.

- VII. In order to justify reciprocity by the maintenance of equality of Standard there might be a Board of Inspectors consisting of a representative of each group, whose duty it should be to visit the Examination of every Board in turn. They should report from time to time to all the constituent Boards, who would then decide whether reciprocity should be continued with any particular Board.
- VIII. A Scheme such as this can be started by a small number of States, and if found to work satisfactorily, can be extended as others become prepared to fulfil the necessary conditions.

Now I have finished—I have encroached already too much on your indulgence.

I realize only too well that in attempting to explain the organisation of the Conjoint Board, I may have failed to convey all I could wish, for it is difficult to express in terms all the hundred and one little points which go to build up a complete system. I can only say that it will be a great pleasure to me to supplement or explain any details of our examinations by conference or correspondence. If in any small degree I have fulfilled the mission which you expected of me as the representative of those two great and ancient corporations which form that Board, I shall feel no little pride in having taken a small part in assisting you to develop the system of Medical Education and Examination, which you, with your characteristic thoroughness, are endeavouring to advance to a position worthy of so great and enterprising a country.

